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EXAMINER

DESIR, PIERRE LOUIS

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2681

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/749,021

Applicant(s)

BI ET AL.

Examiner

Pierre-Louis Desir

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 7, 9, 12, 20-23, 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Trossen et al. (Trossen), Pub. No. US 20030157899.

Regarding claim 1, Trossen discloses a method in wireless communications network infrastructure, the method comprising: transmitting first layer broadcast/multicast service content information on a first channel (see fig. 1, and paragraph 27); transmitting second layer broadcast/multicast service content information on a second channel (see fig. 1, and paragraph 27), at least one of the first and second channels a shared broadcast channel (i.e., wireless channel that supports a multicast service) (see fig. 1, and paragraph 24), the first layer broadcast/multicast service content information related to the second layer broadcast/multicast service content information (i.e., each subchannel transports a component of the multicast presentation) (see fig. 1, and paragraph 27), at least one of the first and second layers capable of

being decoded (i.e., processed) and used without the other of the first and second layers (see paragraph 27).

Regarding claim 2, Trossen discloses a method (see claim 1 rejection) wherein transmitting the first and second layer broadcast/multicast service content information from a common source (see fig. 1, and paragraph 24).

Regarding claim 3, Trossen discloses a method (see claim 1 rejection) wherein transmitting a message identifying at least one of the first and second channels before transmitting the first and second broadcast/multicast service content information (i.e., link-level multicast addresses are assigned corresponding to appropriate groups of layers, and consequently node 207 signals the wireless terminals about the assigned link-level multicast addresses) (see page 4, and paragraph 45).

Regarding claim 4, Trossen discloses a method (see claim 1 rejection) comprising transmitting the first layer broadcast/multicast service content information and transmitting the second layer broadcast/multicast service content information substantially simultaneously (i.e., a performance, which includes audio component and video components are transmitted on different subchannels and received by wireless terminals, wherein the terminals can synchronize the layers that constitute the performance) (see fig. 1, paragraphs 24 and 27).

Regarding claim 5, Trossen discloses a method (see claim 1 rejection) wherein transmitting the first layer broadcast/multicast service content information and transmitting the second layer broadcast/multicast service content information with sufficient temporal proximity to enable substantially synchronized integration of the first and second layer broadcast/multicast service content information by a recipient (see fig. 1, paragraph 24).

Regarding claim 7, Trossen discloses a method (see claim 1 rejection) comprising transmitting third layer broadcast/multicast service content information on a second shared channel, the third layer broadcast/multicast service content information related to the first and second layer content information (see fig. 1, paragraphs 24 and 27).

Regarding claim 9, Trossen discloses a method (see claim 1 rejection) the first layer broadcast/multicast service content information is baseline broadcast/multicast service information transmitted on a shared broadcast channel (i.e., basic layer) (see paragraph 38); the second layer broadcast/multicast service content information is baseline broadcast/multicast service enhancement information transmitted on one of a second shared broadcast channel (i.e., enhancement layer) (see paragraph 38).

Regarding claim 12, Trossen discloses a method (see claim 2 rejection) comprising transmitting the first layer broadcast/multicast service content information using a first transmission parameter (using a first subchannel) (see paragraph 27); transmitting the second layer broadcast/multicast service content information using a second transmission parameter different than the first transmission parameter (i.e., using a second subchannel) (see paragraph 27).

Regarding claim 20, Trossen discloses a method in wireless communications device, the method comprising: receiving a message identifying a channel on which content will be transmitted (i.e., link-level multicast addresses are assigned corresponding to appropriate groups of layers, and consequently node 207 signals the wireless terminals about the assigned link-level multicast addresses) (see page 4, and paragraph 45); receiving first layer content information on a first channel (see paragraph 27); receiving second layer content information on a second

channel (see paragraph 27), at least one of the first and second channels identified in the message (see paragraph 45).

Regarding claim 21, Trossen discloses a method (see claim 20 rejection) comprising combining the first and second layer content at the wireless subscriber device (see paragraphs 24 and 27).

Regarding claim 22, Trossen discloses a method (see claim 20 rejection) wherein the wireless communication device is a broadcast/multicast subscriber device (i.e., wireless terminal) (see fig. 1, paragraphs 24 and 27), and receiving first layer content information includes receiving first layer broadcast/multicast content information (see paragraph 27); receiving second layer content information includes receiving second layer broadcast/multicast content information (see paragraph 27).

Regarding claim 23, Trossen discloses a method (see claim 20 rejection) wherein receiving first layer content information on a first channel includes receiving the first layer content information on a first broadcast channel (i.e., see paragraph 27).

Regarding claim 26 Trossen discloses a method in broadcast/multicast subscriber device comprising: receiving first layer content information on a first channel (see paragraph 27); receiving second layer content information on a second channel (see paragraph 27), at least one of the first and second channels a shared broadcast channel (i.e., wireless channel that supports a multicast service) (see fig. 1, and paragraph 24), receiving first and second layer content information simultaneously (i.e., a performance, which includes audio component and video components are transmitted on different subchannels and received by wireless terminals, wherein the terminals can synchronize the layers that constitute the performance) (see fig. 1, paragraphs

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24 and 27), and integrating the first and second layer content information at the wireless communications device (see paragraphs 24 and 27).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trossen in view of Ranta-Aho et al. (Ranta-Aho), Pub. No. US 20040081125.

Regarding claim 6, Trossen discloses a method as described above (see claim 1 rejection).

Although Trossen discloses a method as described above, Trossen does not specifically disclose a method comprising transmitting the second layer broadcast/multicast service content information on a dedicated channel.

However, Ranta-Aho discloses a method wherein multicast messages are sent in the downlink shared channels (page 1, paragraph 22), and MBMS content is sent on the dedicated channel (see page 3, paragraph 58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Trossen with the teachings of Ranta-Aho to arrive at the claimed invention. A motivation for doing so would have been to ensure the proper transport of the content information.

6. Claims 8, 10-11, 13-14, 17-19, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trossen in view of Hsu, Pub. No. US 20020141391.

Regarding claim 8, Trossen discloses a method as described above (see claim 1 rejection).

Although Trossen discloses a method as described above, Trossen does not specifically disclose a method comprising transmitting reliability information on a third channel, the reliability information for decoding at least one of the first and second layer broadcast/multicast service content information.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content. This may use over-the-air encryption key exchange procedures (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Trossen with the characteristic as described by Hsu to arrive at the claimed invention. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

Regarding claim 10, Trossen discloses a method as described above (see claim 10 rejection).

Although Trossen discloses a method as described, Trossen does not specifically disclose a method comprising encrypting at least one of the first and second layer broadcast/multicast service content information before transmitting.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content. This may use over-the-air encryption key exchange procedures (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Trossen with the characteristic as described by Hsu to arrive at the claimed invention. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

Regarding claim 11, Trossen discloses a method as described above (see claim 1 rejection).

Although Trossen discloses a method comprising transmitting first layer and second layer broadcast/multicast service content information, Trossen does not specifically disclose a method wherein different encryption keys are used before transmitting.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. Furthermore, Trossen discloses that some wireless terminals may receive the video contents and other wireless terminal may receive just the video content, different combination of the content, or all the content. Thus, one skilled in the art would obviously and unhesitatingly conceptualize that by combining the teachings of Trossen with the teachings as disclosed by Hsu, one may arrive at a method wherein the audio content, the first and second part of the video contents may be

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encrypted. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

Regarding claim 13, Trossen discloses a method in wireless communication network comprising transmitting content information on a first channel (see paragraph 27), and transmitting content information on a second channel (see paragraph 27).

Although Trossen discloses a method as described, Trossen does not specifically disclose a method comprising transmitting reliability information with the content information, and transmitting additional reliability information for the content on a second channel, wherein the reliability and additional reliability information for decoding the content.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. Furthermore, Trossen discloses that some wireless terminals may receive the video contents and other wireless terminal may receive just the video content, different combination of the content, or all the content. Thus, one skilled in the art would obviously and unhesitatingly conceptualize that by combining the teachings of Trossen with the teachings as disclosed by Hsu, one may arrive at a method wherein the audio content, the first and second part of the video contents, which are transmitted on different subchannels, may be transmitted with reliability information (i.e., encryption) to be decrypted by the terminal. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

Regarding claim 14, Trossen discloses a method as described above (see claim 13 rejection).

Although Trossen discloses a method comprising transmitting the first layer broadcast/multicast service content information and transmitting the second layer broadcast/multicast service content information substantially simultaneously (i.e., a performance, which includes audio component and video components are transmitted on different subchannels and received by wireless terminals, wherein the terminals can synchronize the layers that constitute the performance) (see fig. 1, paragraphs 24 and 27), Trossen does not specifically disclose a method comprising transmitting the content, the reliability information and the additional reliability information with sufficient temporally proximity to enable decoding and additional reliability information.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content, using over the air encryption key exchange procedures (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. Furthermore, Trossen discloses that some wireless terminals may receive the video contents and other wireless terminal may receive just the video content, different combination of the content, or all the content. Thus, one skilled in the art would obviously and unhesitatingly conceptualize that by combining the teachings of Trossen with the teachings as disclosed by Hsu, one may arrive at a method wherein the audio content, the first and second part of the video contents are transmitted on different subchannels, wherein the encryption key to decrypt the content information is

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transmitted using over-the-air encryption key procedures. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

Regarding claim 17, Trossen discloses a method comprising transmitting content information on a shared channel (see paragraphs 24 and 27), and transmitting content information on a second shared channel (see paragraphs 24 and 27).

Although Trossen discloses a method as described, Trossen does not specifically disclose a method comprising transmitting reliability information with the content information, and transmitting additional reliability information for the content.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. Furthermore, Trossen discloses that some wireless terminals may receive the video contents and other wireless terminal may receive just the video content, different combination of the content, or all the content. Thus, one skilled in the art would obviously and unhesitatingly conceptualize that by combining the teachings of Trossen with the teachings as disclosed by Hsu, one may arrive at a method wherein the audio content, the first and second part of the video contents, which are transmitted on different subchannels, may be transmitted with reliability information (i.e., encryption) to be decrypted by the terminal. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

Regarding claim 18, Trossen discloses a method (see claim 13 rejection) comprising transmitting the content information using a first transmission parameter (first subchannel) (see paragraph 27) and transmitting additional content information using a second transmission parameter different than the first transmission parameter (second subchannel) (see paragraph 27). Although Trossen discloses a method as described, Trossen does not specifically disclose a method comprising transmitting reliability information with the content information, and transmitting additional reliability information for the content.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. Furthermore, Trossen discloses that some wireless terminals may receive the video contents and other wireless terminal may receive just the video content, different combination of the content, or all the content. Thus, one skilled in the art would obviously and unhesitatingly conceptualize that by combining the teachings of Trossen with the teachings as disclosed by Hsu, one may arrive at a method wherein the audio content, the first and second part of the video contents, which are transmitted on different subchannels, may be transmitted with reliability information (i.e., encryption) to be decrypted by the terminal. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

Regarding claim 19, Trossen discloses a method comprising transmitting content information on a first channel substantially simultaneously with transmitting another content information on a second channel (see paragraph 27).

Although Trossen discloses a method as described, Trossen does not specifically disclose a method comprising transmitting content and reliability information on a first channel substantially simultaneously with transmitting the additional reliability information for the content on the second channel.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content, by using encryption key exchange procedure (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. Furthermore, Trossen discloses that some wireless terminals may receive the video contents and other wireless terminal may receive just the video content, or different combination of the content. Thus, one skilled in the art would obviously and unhesitatingly conceptualize that by combining the teachings of Trossen with the teachings as disclosed by Hsu, one may arrive at a method wherein the audio content, the first and second part of the video contents may be encrypted. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received

Regarding claim 24, Trossen discloses a method as described above (see claim 20 rejection).

Although Trossen discloses a method as described above, Trossen does not specifically disclose a method wherein the first and second layer content information is encrypted, and decrypting the second layer content information with a second key that is different than the first key.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content, by using encryption key exchange procedure (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. Furthermore, Trossen discloses that some wireless terminals may receive the video contents and other wireless terminal may receive just the video content, or different combination of the content. Thus, one skilled in the art would obviously and unhesitatingly conceptualize that by combining the teachings of Trossen with the teachings as disclosed by Hsu, one may arrive at a method wherein the audio content, the first and second part of the video contents may be encrypted. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

Regarding claim 25, Trossen discloses a method as described above (see claim 20 rejection).

Although Trossen discloses a method as described, Trossen does not specifically disclose a method wherein at least one of the first and second layer content information is encrypted, receiving at least one decryption key for the at least one decrypted first and second layer content information.

However, Hsu discloses a method wherein controlled access can be achieved by encrypting the transmission/content so that only the subscribed users can decrypt the content (, by using encryption key exchange procedure (see paragraph 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. Furthermore, Trossen discloses that some wireless terminals may receive the video contents and other wireless terminal may receive just the video content, different combination of the content, or all the content. Thus, one skilled in the art would obviously and unhesitatingly conceptualize that by combining the teachings of Trossen with the teachings as disclosed by Hsu, one may arrive at a method wherein the audio content, the first and second part of the video contents may be encrypted. A motivation for doing so would have been to ensure the authentication of the information being transmitted and received.

7. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trossen and Hsu in further view of Ranta-Aho.

Trossen and Hsu disclose a method as described above (see claim 13 and 14 rejections). The combination discloses a method comprising transmitting content and information on a shared broadcast channel wherein content information and reliability information are transmitted at substantially the same time (see Hsu paragraph 61, also refer to claims 13 and 14 rejections). The combination further discloses transmitting additional broadcast/multicast service content information (see Trossen paragraph 27).

Although the combination discloses a method as described above, the combination does not specifically disclose a method comprising transmitting information on a dedicated channel.

However, Ranta-Aho discloses a method wherein multicast messages are sent in the downlink shared channels (page 1, paragraph 22, also refer to paragraphs 31 and 52), and MBMS content is sent on the dedicated channel (see page 3, paragraph 58, also refer to paragraphs 31 and 52), and wherein broadcast or simulcast content information may be received simultaneously (see paragraph 70).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Sarkinen with the teachings of Ranta-Aho to arrive at the claimed invention. A motivation for doing so would have been to ensure the proper transport of the content information.


Conclusion


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-7799. The examiner can normally be reached on Monday-Friday from 0800-1600.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Pierre-Louis Desir
AU 2681
09/15/2005


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